AQC0509

Nanopublication — Computational Image Analysis - AQC0509

by Arnaud Quercy · Le chant du Chardonneret élégant · 2024

Claim 1: Computational Image Analysis - AQC0509

> K-means clustering analysis [3] (10 colors) performed on artwork Le chant du Chardonneret [1] élégant (AQC0509) [2] by Arnaud Quercy [2] on 2026-02-04. Documentation includes: color families, texture roughness, brightness distribution, spatial coherence.

CONTEXT

Analysis performed according to MMIDS-CMP-2025 [3] includes four metric categories: (1) Color distribution via k-means (10 colors), (2) Texture analysis using Haralick features, (3) Brightness and contrast measurements, (4) Spatial pattern characterization. Source image [5]: 1366x2048 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		C3C0AC	15.3	yellow	silver
2		474137	11.6	yellow-orange	darkslategray
3		CDAC72	11.2	yellow-orange	ochre
4		A48B5D	10.9	yellow-orange	peru
5		969B93	10.6	yellow-green	steel gray
6		E1DECF	10.5	yellow	gainsboro
7		6C6E67	10.3	gray	dimgray
8		1F1912	8.4	orange	black
9		8B5926	6.7	orange	burnt sienna
10		C87E37	4.4	orange	chocolate
11		30426B	0.3	blue-violet	grayish purple [Accent]

Color Families:

Family	%
yellow-orange	33.8
yellow	25.9
orange	19.5
yellow-green	10.6
gray	10.3
blue-violet	0.3

Accent Colors:

Hex	Family	Name	Chroma
30426B	blue-violet	grayish purple	26.7

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.229
Mean Local Roughness	0.052
Roughness Uniformity	0.025
Edge Density	0.317
Mean Gradient Magnitude	0.392
Gradient Variance	0.11
Gradient Smoothness	0.153
Directional Coherence	0.001
Pattern Complexity	0.118
Pattern Repetition	1.0
Detail Frequency Ratio	0.64
Spatial Variation	0.082
Texture Consistency	0.777

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.542
Brightness Variance	0.229
Brightness Uniformity	0.578
Brightness Skewness	-0.402
Brightness Entropy	7.79
Rms Contrast	0.229
Michelson Contrast	1.0
Weber Contrast	0.757
Mean Local Contrast	0.052
Contrast Uniformity	0.52
Dynamic Range	1.0
Effective Dynamic Range	0.753
Shadow Percentage	20.491
Midtone Percentage	45.091
Highlight Percentage	34.418
Shadow Clipping	0.106
Highlight Clipping	0.025
Tonal Balance	0.48
Fine Contrast	0.031
Medium Contrast	0.065
Coarse Contrast	0.088
Multiscale Contrast Ratio	0.357
Edge Contrast	0.392
Contrast Clustering	0.223

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.666
Color Clustering	0.795
Color Transition Smoothness	0.0
Transition Uniformity	0.213
Sharp Transition Ratio	0.1
Transition Directionality	0.002

Metric	Value
Mean Saturation	0.313
Saturation Variance	0.061
Low Saturation Ratio	0.567
Medium Saturation Ratio	0.336
High Saturation Ratio	0.097
Saturation Clustering	0.995
Hue Concentration	0.857
Complementary Balance	0.053
Analogous Dominance	0.92
Temperature Bias	0.818

Methodology

This analysis employs standardized computational methods for objective image characterization. Color extraction uses k-means clustering algorithm. Texture analysis applies Haralick feature extraction. Brightness metrics include mean, variance, and distribution analysis. Spatial patterns are characterized through coherence and clustering measurements. All methods are deterministic and reproducible. Analysis performed by Multimodal Institute's computational imaging systems.

REFERENCES

[1] Arnaud Quercy (2024). Le chant du Chardonneret élégant — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0509.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/le-chant-du-chardonneret-elegant_5q6.html

[3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 https://multimodal.institute/en/publications/2025/11/mmids-cmp-2025-computational-image-analysis-standard-dg1.html

EPISTEMIC PROFILE

Claim type	computational analysis
Voice	third person
Epistemic status	empirical measurement
Methodology	computational analysis
Certainty	high

CHECKSUM (SHA-256)

b2d868ca7f22f42926ebdde7096623da91b5be4c27fbec4e229ef46faab-c8adf

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